

Data Sheet

Savvio® 10K.3

Lowest-power, high-capacity 2.5-inch drive for the enterprise

**2.5-inch form factor • 10K RPM •
300GB and 146GB • 6Gb/s Serial Attached SCSI**

Key Advantages

- Seagate® PowerTrim™ technology dynamically reduces power.
- 75% power savings over comparable 3.5-inch 300GB capacity drives
- 70% smaller size over 3.5-inch drives reduces overall system cooling costs.
- 40% reduction in \$/IOPS over comparable 3.5-inch drives
- 60% improvement in system-level performance over 3.5-inch 15K drives
- Supports 6Gb/s transfer rates and SAS 2.0 feature set
- TCG-compliant Self-Encrypting Drive (SED) option cuts IT drive retirement expenses while securely protecting data and is one of the easiest, most cost-effective security measures you can implement.¹
- FIPS Self-Encrypting Drive option provides all the benefits of SED and is NIST certified to meet U.S., Canada and U.K. federal data encryption compliance requirements.^{1, 2}
- Delivers on Seagate Unified Storage architecture strategy to converge best-of-breed technologies (Serial Attached SCSI, small form factor and SED security¹) to enable powerful, yet simple external storage and internal server storage solutions that strengthen business efficiencies while cutting TCO and boosting ROI.



Best-Fit Applications

- Mainstream enterprise servers and storage arrays
- Power-constrained and/or space-constrained data centers
- Government-grade, data-at-rest security when drives leave your control¹
- Drive retirement cost reduction and drive life extension strategies¹

¹ Requires TCG-compliant host or controller support. Not available in all countries.

² See FIPS 140-2 Level 2 Certificate at <http://csrc.nist.gov/groups/STM/cmvp/documents/140-1/1401vend.htm>.



FIPS 140-2 INSIDE



Unified Storage™

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Smaller, Faster and More Energy-Efficient

Solution designers count on the Seagate® Savvio® 10K.3 drive's design flexibility to provide competitive solutions afforded by the smaller size, higher capacity, lower power consumption, and greater performance and reliability. It is the innovative market enabler for green/low-power solutions, while providing capacities up to 300GB.

The Savvio 10K.3 drive reduces system power consumption and cooling requirements with PowerTrim technology and is the industry's lowest-power 2.5-inch, Tier-1/mission-critical, enterprise-ready drive.

More Robust, With Higher Integrity

The Savvio 10K.3 drive supports the more robust SAS 2.0 features to meet rigorous enterprise requirements (faster data transfers at 6Gb/s and a higher level of data integrity for interface communications). It has field-proven reliability and optimizes ROI with low power, high capacity and high performance for your customer's mission-critical Tier 1 systems. Distributors can standardize on a 2.5-inch form factor with 6Gb/s SAS, reducing design/support costs.

Strong Enough for National Security¹

The Savvio 10K.3 drive is available in SED or FIPS SED models; both eliminate the need to overwrite or physically destroy drives, enable secure return of drives for warranty or expired lease purposes, and allow organizations to securely repurpose or sell hard drives. For added physical security and more stringent regulatory compliance needs, the FIPS SED model is FIPS 140-2 Validated™ for use with sensitive but unclassified or protected (A or B) class data.

These Seagate Secure™ models help OEMs and system builders gain competitive advantage, differentiate solutions (with strong data security), sell to new customers (that require strong data security), and protect brand equity (and customer confidence).

Unified Storage Architecture

By using SFF drives, a common SAS interface and SED security¹ capabilities, Seagate Unified Storage architecture delivers a best-of-breed foundation for powerful yet simple storage solutions for the data center. What's more, Unified Storage architecture enables superior multi-drive servers and storage solutions that reduce costs and design complexity for OEMs and other system builders, lowers TCO while improving ROI by providing large enterprises and SMBs lower-cost multi-drive servers and storage, and reduces storage complexity and enables peace of mind for the IT manager.

¹ Requires TCG-compliant host or controller support. Not available in all countries.

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Specifications	300GB ¹	146GB ¹
Model Number	ST9300603SS ST9300503SS ² ST9300403SS ³	ST9146803SS ST9146703SS ² ST9146603SS ³
Capacity		
Formatted 512 Kbytes/Sector (GB)	300	146.8
External Transfer Rate (MB/s)		
3-Gb/s Serial Attached SCSI	300	300
6-Gb/s Serial Attached SCSI	600	600
Performance		
Spindle Speed (RPM)	10K	10K
Average Latency (ms)	3.0	3.0
Seek Time		
Average Read/Write (ms)	3.6/4.2	3.6/4.2
Sustained Transfer Rate, Outer to Inner Diameter (MB/s)	129 to 67	129 to 67
Cache, Multisegmented (MB)	16	16
Configuration/Reliability		
Disks	2	1
Heads	4	2
Nonrecoverable Read Errors per Bits Read	1 sector per 10E16	1 sector per 10E16
Annualized Failure Rate (AFR)	0.55%	0.55%
Power Management		
Typical Op (amps) +12V/+5V	0.35/0.39	0.35/0.42
Power Idle (watts)	3.5	3.2
Environmental		
Temperature, Operating (°C)	5 to 55	5 to 55
Temperature, Nonoperating (°C)	-40 to 70	-40 to 70
Shock, Operating: 2 ms (Gs)	60	60
Shock, Nonoperating: 2 ms (Gs)	300	300
Acoustics Idle (bels—sound power)	3.1	3.1
Vibration, Operating: <400 Hz (Gs)	0.5	0.5
Vibration, Nonoperating: <500 Hz (Gs)	2.4	2.4
Encryption		
Self-Encrypting Drive option ²	Yes	Yes
FIPS Self-Encrypting Drive option ³	Yes	Yes
Physical		
Height (in/mm)	0.583/14.8	0.583/14.8
Width (in/mm)	2.76/70	2.76/70
Depth (in/mm)	3.957/100.5	3.957/100.5
Weight (lb/kg)	0.50/0.227	0.50/0.227

¹ One gigabyte, or GB, equals one billion bytes and one terabyte, or TB, equals one trillion bytes when referring to hard drive capacity.

² Self-Encrypting Drive model. Requires TCG-compliant host or controller support. Not available in all countries.

³ FIPS Self-Encrypting Drive model. Requires TCG-compliant host or controller support. Not available in all countries.

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